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Cambodia 1998–2008

An Episode of Rapid Growth

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Abstract

Cambodia's growth over 1998–2008 has been remarkable (almost 10 percent per annum for a decade). This paper applies a "growth diagnostic" approach to understand how this happened and how it can be sustained. Past growth has been driven by the coincidence of a set of historical and geographic factors (including opportunistic policy responses), together with the use of natural assets (although in a non sustainable way) and the elaboration of productive sector-specific governance arrangements. Several of these factors are unfortunately not self-sustaining and the global economic crisis of 2008–09 is exposing these vulnerabilities. A growth diagnostic flags a number of short-term priorities to ensure the competitiveness of existing industries, as well as more medium-term priorities for the country to continue attracting foreign investment and start mobilizing more domestic savings. A key economic policy objective is the diversification of the economy, which requires a reduction in unproductive risks and costs as well as creative solutions to coordination failures.

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Cambodia 1998-2008: An Episode of Rapid Growth

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I. Introduction

1. **Cambodia has gone through an unusual period of rapid growth over the past decade**. It is unusual vis-à-vis the global experience of development: over 1998-2007, Cambodia's growth performance ranks 6th across all countries in the world; and of 194 countries with data between 1960 and now, Cambodia is one of only 46 that have achieved 7 percent annual growth on average for 14 consecutive years. This is also unusual by post-conflict countries standard (Collier, 2003). In addition, the arithmetic of compounded rates of growth means that sustaining a few additional percentage points of growth rapidly makes a difference. At the rate of growth of the past decade (7 percent per capita per annum), it will take only another ten years for Cambodia to double its income per capita, reaching middle-income status; at 2 percent per annum, it would take three and a half decades.

2. **Was it just an "episode" of rapid growth or the beginning of a take-off?** Sustaining rapid growth is a "necessary condition for the achievement of a wide range of objectives that people and societies care about" (Growth Commission, 2008). Continuing to create jobs is critical for Cambodia, given the 250,000 or so young people joining the labor market every year, with increasing levels of education and expectations, and, often, with decreasing access to land as an alternative livelihood. Hence this paper seeks to understand what the drivers of such rapid growth were to assess their sustainability and assess what it will take to sustain rapid growth. It takes the pragmatic view of the growth diagnostic methodology, seeking specific constraints on today's growth and looking for actions that practically could help the country sustain growth.

3. **Mid-2009, the impact of the global economic crisis starts to be felt in Cambodia, giving ground to the view that this was a temporary boom**. The economy was indeed not directly exposed to the first wave of the crisis (given the limited development and relative conservatism of the financial sector), but is very exposed to the second wave through its openness to trade and dependency on foreign capital. Cambodia is one of the few low income countries where the economy contracted in 2009. In fact, the vulnerabilities that were evident during the boom period make Cambodia particularly exposed to the crisis (Section III). Unfortunately such dramatic fluctuations in price and investment crash have historically been the symptoms of growth stops (Berg et al., 2008).

4. **Nevertheless, the analysis underlying this paper points to a moderately optimistic medium-term scenario**. Cambodia is a small open economy, with abundant land and an extraordinary biodiversity. It has a young and dynamic labor force and is located in the vibrant region of Southeast Asia. It may have mineral resources. It has a unique cultural heritage in Angkor Wat. The lessons from this growth diagnostic are also that a number of key ingredients of sustained growth have been learned over the past decade.

5. The paper is structured as follows. Section II highlights the country background and the economic situation in 2008. Section III reviews lessons from Cambodia's own economic history. Section IV analyzes constraints to growth and Section V concludes. Additional policy discussions are included in the World Bank's report to which this paper is an input (World Bank, 2009).

II. Country Background and Economic Situation in 2008

6. **Cambodia is a small, coastal economy in Southeast Asia**. Located on the coast bordering Thailand and Vietnam, it has abundant land (177,000 sq. meters), an exceptional biodiversity, and outstanding cultural heritage (the temples of Angkor Wat in particular). Its population, 13.4 million in 2008, is young and homogenous (almost entirely Buddhist, with some very small indigenous communities in the mountain areas mainly and a few other small minorities). The demography has been driven by history: more than 2 million Cambodians died during the Khmer Rouge period; a first baby boom followed in 1980-81; a second baby boom happened in the early 1990s as peace was settling in. In parallel, Cambodia experienced an early demographic transition. This means that in recent years the dependency ratio – ratio of young and elderly over the working-age population – has been decreasing steadily, contributing to increasing growth per capita.

7. **The political system has been stable in recent years**. Following the Paris Peace Agreement of 1991 and the UN administration until 1993, the 1990s have witnessed continued internal tensions (both for elections and for continued military operations). With the fall of the last pockets of Khmer Rouges in the late 1990s, the country has reached a steady-state with a dominant party – the Cambodian People's Party (CPP), with Prime Minister Hun Sen in power since the mid-1980s – winning all general elections, including the most recent in July 2008. The political equilibrium is heavily influenced by the post-conflict situation, including its significant centralization (to ensure control during difficult times) and patronage-client networks developed for stability purposes. Importantly, CPP electoral successes seem to be increasingly linked to the regime's capacity to deliver economic development, and infrastructure in particular.[1]

8. **Cambodia's economy – and most of the growth over 1998-2008 – consists of four sectors: garments, tourism, construction and agriculture**. The industry and services sectors accounted for 4.5 and 4.8 points of growth per annum respectively (against 2.0 for agriculture, although the contribution of agriculture was above this average in recent years).[2] As a result, the economy has undergone a profound transformation, with agriculture by 2007 ranking behind both industry and services in terms of value-added (although still first in terms of employment, Figure 1). The pace of this transformation appears consistent with that of countries that experienced Sustained Rapid Growth (SRG)[3] over the past half-century. In fact, very few jobs were created in agriculture. But significant jobs were created in higher-productivity sectors such as industry and service. At the same time, productivity gains in these higher-productivity sectors were limited, while increasing yields were achieved in agriculture (in other words, the gap in productivity across sectors was reduced).

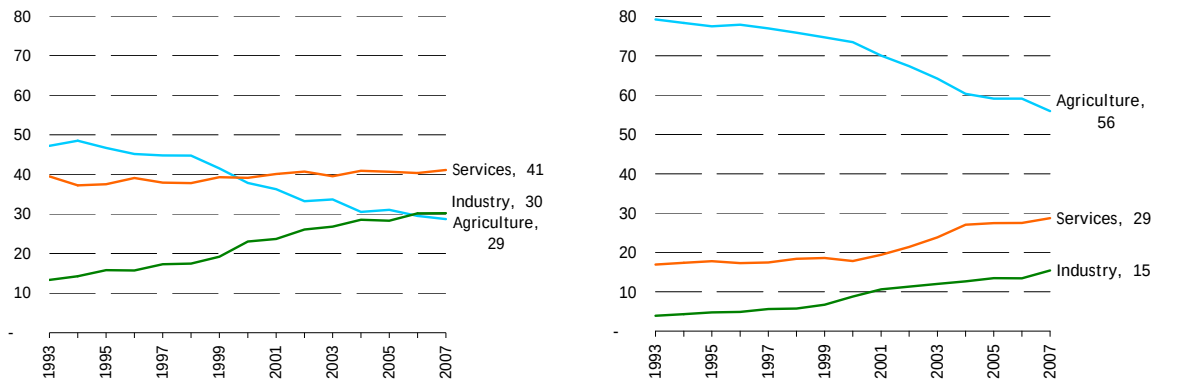
Figure 1: Cambodia's economy has started its transformation

a/Share of GDP (%) b/ Share of Employment (%)

[1] This is evidenced by a series of polls conducted by the Independent Republican Institute, showing that most Cambodians feel their country is moving in the right direction. This is thanks to the development of infrastructure and despite serious concerns about corruption, according to the polls.

[2] The contribution of services includes the growth of tax on products net of subsidies.

[3] This refers to the countries studied in Growth Commission, 2008.



Source: NIS, national accounts.

9. **Agriculture remains a crucial part of Cambodia's economy** (Table 1). Growth in the sector is driven by crops (mainly rice) and, to a lesser extent, livestock and fisheries. *Crops* are dominated by rice. Eighty percent of farmers grow rice, 60 percent of them for subsistence. Rice covered 2.6 million ha in 2007 (two thirds of arable land and 90 percent of cultivated land) and production grew from 3.4 to 6.7 million tons between 1997 and 2007. Although data are patchy, this would mean that Cambodia has been an exporter of rice since 2004, with around 2 million tons now exported (around US$300 million) each year. Yields remain however low (at 2.6 tons/ha, against 3.5-4.0 on average in the region). Cassava is a promising crop, with yields recently reaching 23 tons/ha (a level similar to Thailand and Vietnam) – but only 3 percent of cultivated land is used for it. Other crops include cashew nuts, maize, rubber, tobacco, and jathropha. *Livestock* (pigs and poultry mainly) remains a crucial part of most farming activities and an important savings device. *Fisheries* are an important, though declining source of growth. Inland fisheries (in particular around the Tonle Sap, an exceptionally rich freshwater environment) dominate the sector (with fish complementing rice in Cambodian traditional diet), while marine fisheries are largely for export. Reforms since 2000 have attempted to promote better management of the fish stock and the development of community fisheries, but the declining size of the fish stock remains a concern. Finally, *forestry* played an important role in the 1990s, with significant illegal logging. Since strong regulations were put in place around 2000, massive logging has been curbed and activity in the sector relates more to community-level logging – as forestry continues for many communities to play a supporting role for rural livelihoods. Cambodia's forests are estimated to cover about 11 million ha (or 60 percent of the country), although there is considerable debate about this statistic.

10. **Industry is the fastest growing sector**. Growth in the sector is driven by manufacturing (mainly garments and footwear) and construction. *Garments (and footwear)* is the country's leading export sector and has been growing at an average of 28 percent per annum: exports went from almost zero in 1994 to US$2.8 billion in 2007 (70 percent to the US market – where Cambodia was the 8th largest supplier in 2007 – and 22 percent to the EU). Cambodia's exports are mainly low-end garments and some footwear, with no diversification to textile or more complex garments. *Food manufacturing* is an area of unmet potential. *Other manufacturing* are also underdeveloped, with only a few recent examples of assembly factories (bicycles, cars, motorcycles). *Construction* has been booming since 2002 but it has significantly decelerated in

2007. *Electricity, gas and water* has developed very rapidly, but without catching up with demand. Finally *Mining* has been growing fast in recent years but from a very low base. It remains mainly artisanal.

Table 1: Sectoral economic structure

Sector	Value Added in 2006 (Bill. of Riels)	Percent of GDP (2006)	Contribution to GDP (1998-2007)	Growth (1998-2007)	Share of Employment[1] 2006	Expo 200 (Mill. U
AGRICULTURE, FISHERIES & FORESTRY	**6,830.3**	**28.0%**	**1.4%**	**4.4%**	**57.4%**	
Crops	3,469.7	14.3%	1.1%	0.1	51.9%	
Paddy	1,891.4	7.8%	0.5%	7.6%	-	
Maize	181.2	0.7%	-	-	-	
Cassava	187.2	0.8%	-	-	-	
Soya Beans	95.9	0.4%	-	-	-	
Vegetables	273.0	1.1%	-	-	-	
Tobacco	89.1	0.4%	-	-	-	
Rubber	176.1	0.7%	-	-	-	
Other Cash Crops	303.6	1.2%	-	-	-	
Other Crops	272.2	1.1%	0.4%	7.0%	-	
Livestock & Poultry	1,080.2	4.4%	0.2%	3.3%	0.1%	
Fisheries	1,769.9	7.3%	0.2%	2.2%	4.7%	
Forestry & Logging	510.6	2.1%	-0.1%	-2.0%	0.7%	
INDUSTRY	**6,977.5**	**28.6%**	**3.4%**	**15.5%**	**14.5%**	
Mining	100.9	0.4%	0.0%	17.3%	0.3%	
Manufacturing	5,059.8	20.8%	2.6%	0.2	10.8%	
Food, Beverages & Tobacco	501.6	2.1%	0.1%	2.2%	-	
Textile,Wearing Apparel & Footwear	3,873.1	15.9%	2.4%	27.7%	-	
Wood, Paper & Publishing	99.9	0.4%	-0.1%	-4.3%	-	
Rubber Manufacturing	53.6	0.2%	0.0%	8.7%	-	
Other Manufacturing	531.6	2.2%	0.2%	9.7%	-	
Electricity, Gas & Water	135.5	0.6%	0.1%	12.7%	0.2%	
Construction	1,681.2	6.9%	0.7%	14.7%	3.2%	
SERVICES	**9,341.5**	**38.3%**	**3.7%**	**0.1**	**28.1%**	
Trade	2,049.2	8.4%	0.5%	5.1%	14.2%	
Hotel & Restaurants	1,083.7	4.4%	0.5%	13.4%	0.8%	
Transport & Communications	1,523.0	6.2%	0.6%	9.7%	2.7%	
Finance	311.7	1.3%	0.1%	14.6%	0.4%	
Public Administration	333.2	1.4%	0.0%	-0.3%	0.2%	
Real Estate & Business	1,856.0	7.6%	0.8%	12.1%	2.3%	
Other services	2,184.7	9.0%	1.2%	17.5%	7.5%	
			0.0%			
Taxes on Products less Subsidies	**1,582.6**	**6.0%**	**0.8%**	**14.4%**	-	
Less: Subsidies	112.3	0.5%	0.0%	32.9%	-	
Less: FISIM	239.8	1.0%	0.1%	9.3%	-	
					-	
GROSS DOMESTIC PRODUCT (GDP)	**24,379.7**	**100.0%**	**9.3%**	**9.3%**	**100.0%**	

Source: National Institute of Statistics
1 - IMF Extrapolation based on the results of CSES 2004
2 - IMF Article IV Report, Statistical Apendix, August 2007

11. **Services have maintained a steady share of Cambodia's economy**. *Trade* was driven by both domestic and international trade. Large parts of the sector remain informal, in part a response to disincentives (such as red tape and corruption at border posts) to formalizing. *Real estate* has been developing with the construction sector. *Transport* has been driven mainly by tourism and trade. *Telecommunication* has been growing very rapidly with the development of cell phones and internet providers. *Hotels and restaurants* is largely driven by tourism. Cambodia was one of the fastest growing tourist destinations in South-East Asia in the 1960s. Although it did not recover until the mid 1990s, tourist arrivals have now risen to more than 2 million in 2007, with two-thirds of visitors coming from East Asia (South Korea in particular). The rapid growth

of tourism owes to Cambodia's exceptional cultural heritage and its natural endowment (and its location in a dynamic region), recent stability, and key policies (such as the Open Skies Policy introduced in late 1997). *The financial sector* has developed from a very low base and expanded very rapidly. It remains dominated by the banking sector, with a very small insurance sector starting up and a few investment funds created in 2007-08. *Public administration* is small, poorly paid, and not very effective. *"Other services"* include a variety of formal (e.g. education and health) and informal (e.g. "household services") services that have been growing rapidly with the development of the economy.

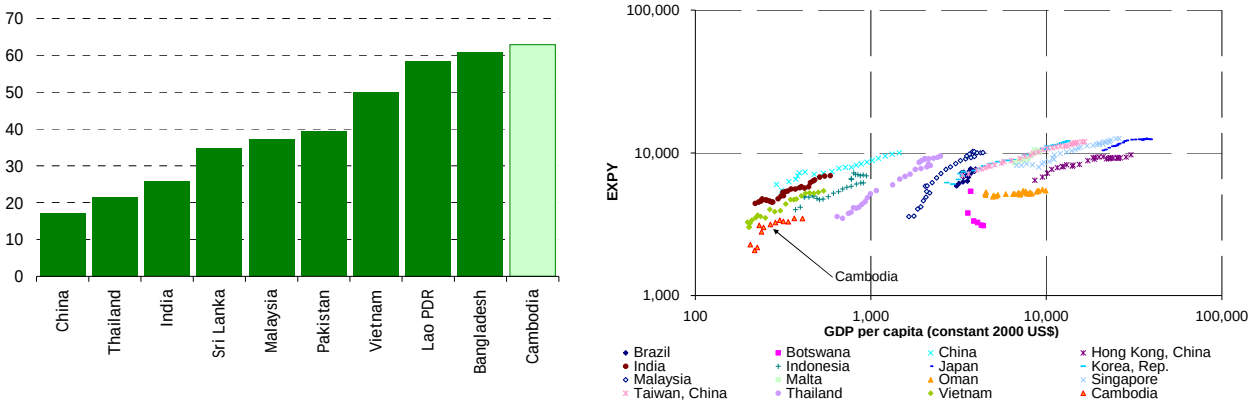
12. **Other important features of growth in Cambodia are the strong growth in consumption, the weak level of investment, and the small size of the public sector**. Consumption has been one of the main drivers of growth, contributing 5.7 points of growth per annum. Exports have increased fast, but the contribution of net exports to growth has been very small (0.1 percentage point on average). On the investment side, it is a major achievement that the investment-to-GDP ratio has increased from 15 percent in 1997 to 21 percent in 2007, contributing 2.4 points of growth per annum on average. However, this level is below what other countries with rapid growth have typically achieved and, in a growth accounting framework, the contribution of physical capital accumulation to growth has been limited. The composition of investment is also problematic: public investment is low and the rapid increase in FDI suggests that domestic investment has been particularly limited, possibly averaging only around 5 percent of GDP per annum. Finally the public sector is unusually small, in part reflecting the limited revenue mobilization capacity and large informal part of the economy.

13. **Diversification of the economy should therefore be a key objective for Cambodia** (Figure 2). Cambodia's five main products account for more than 60 percent of its total exports, a concentration significantly higher than other countries. In addition, the degree of sophistication of Cambodia's exports has been low and stagnant: in other words, despite a rapid transformation of the country, the economy does not seem to respond to new comparative advantages. This is evident from a measure of sophistication based on the income per capita of countries exporting products similar to Cambodia (see also Hausmann and Klinger, 2007). It is also evident from the structure of Cambodia's value chains – e.g. the garment sector is dominated by "cut-make-trim" operations that cover the simplest parts of the garment value chain; similarly, tourism operations are typically fragmented with significant parts of value addition imported from other countries; similarly rice is exported as paddy, as opposed to milled rice.

Figure 2: Cambodia's exports are poorly diversified and of low complexity

a/ Share of 5 main products in exports across countries in 2000-04 (%)

b/ Complexity of Cambodia's exports relative to other SRG countries



Note: EXPY is an indicator of the complexity of a country's basket of exports. Cf. Hausmann and Klinger (2007). Source: World Bank, based on UN Comtrade database and WDI.

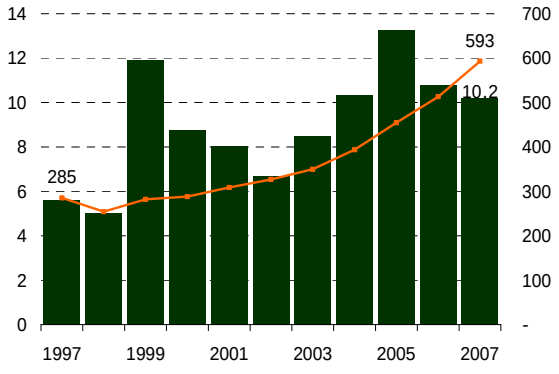
III. Historical Overview

14. Before reviewing the key constraint to growth, this section seeks to derive lessons from the recent episode of rapid growth. It is expected that to achieve rapid growth, some key constraints were indeed overcome. A review of rapid growth will also help the comparative advantage on which future growth could build.

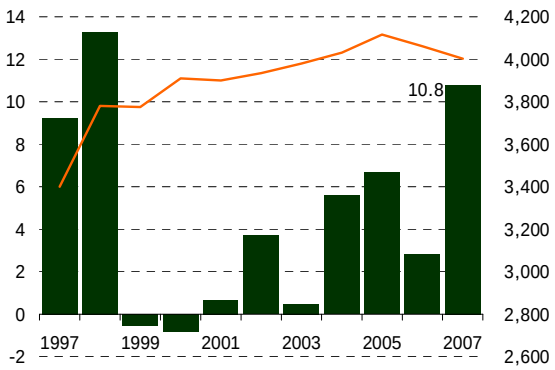
15. **Cambodia has established a strong track record of growth and stable macroeconomic conditions** (Figure 3). Growth accelerated in 1999 as the domestic political situation became clearer and the external economic situation improved following the 1997 Asian crisis. Growth averaged 9.8 per annum, with inflation largely remaining below 5 percent throughout the period. A review of this performance suggests three main dimensions to this achievement.

Figure 3: Growth has been rapid and inflation low

a/ Growth (%, left) and GDP per capita (US$, right)



b/ Inflation (%, left) and US$ rate (riels, right)



Note: the NIS has not yet updated population figures. Hence GDP per capita based on projections. Source: NBC and NIS.

History and Geography

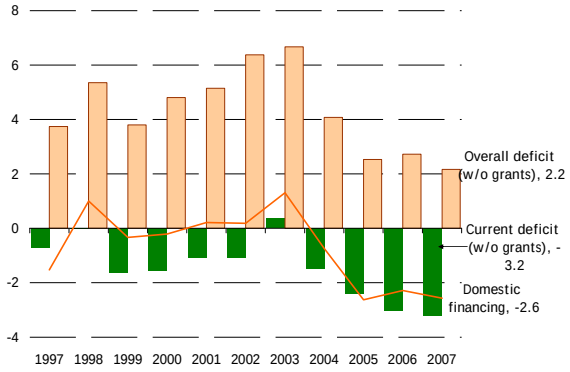
16. **The first dimension of this growth episode has been the country's favorable geography and its recovery from conflict and instability**. Cambodia sits in a dynamic region, with access to international markets and dynamic neighbors such as Vietnam and Thailand.

Cambodia managed its historical transitions to end the three-decade long conflict and shift from a command-and-control economy to a market-oriented economy (Hughes, 2003). At the same time, Cambodia seized the opportunity presented by a rapid growth in global demand and by its location as a coastal country in a dynamic region. This first dimension highlights the key role of openness and macroeconomic stability (also two of the key ingredients highlighted by the Growth Commission, 2008).

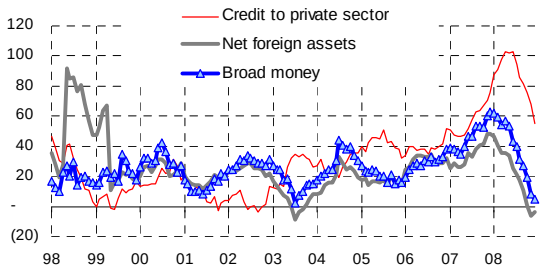
17. **First, Cambodia has generated a growth peace dividend by establishing a track record of political and macroeconomic stability**. This stability was achieved in the late 1990s, at a historical period of rapid world growth, in particular in East Asia. Political stability has been a foundation of sustained growth. Another implication of history was the return of part of Cambodia's Diaspora, bringing funds, knowhow, and ideas. Cambodia also achieved significant inflows of external assistance following the 1991 Paris Agreement. Macroeconomic stability is also noteworthy given (i) the limited instruments at the authorities' disposal (the economy is dollarized and the revenue to GDP ratio very low) and (ii) the number of terms-of-trade shocks (including large swings in global prices of petroleum products and the end of the Multi-Fiber Arrangement (MFA) and its quota system).

Figure 4: Macroeconomic policies have been conducive to stability

a/Fiscal Policy (% GDP)



b/ Monetary Framework (%, year-on-year)



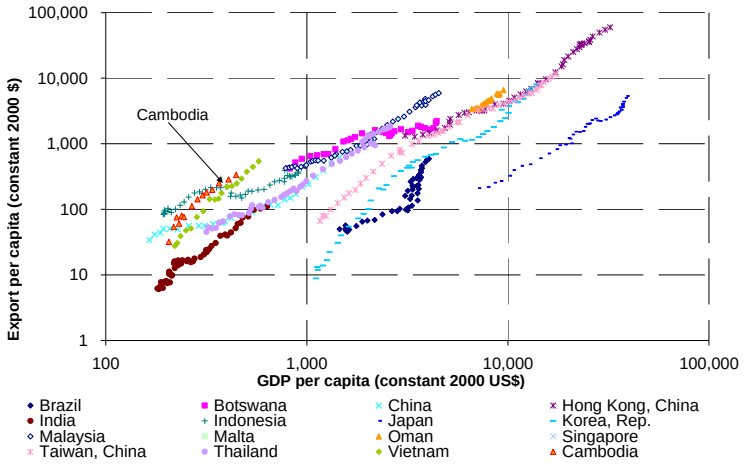
Sources: MEF, NBC, NIS, Staff

18. **Second, Cambodia seized this historical moment through opportunistic trade and investment policies**. First, with its nascent *garment* sector growing very rapidly and concerns about such growth in the US, it agreed with the US extended quotas in exchange for strict enforcement of labor standards (Box 1). Second, this approach was complemented by a favorable *investment regime* (equal treatment for domestic and foreign investors; tax holidays for a large range of "qualified investment projects"). FDI was above 6 percent of GDP between 2004 and 2008. Third, the *trade regime* is also very open, with the applied tariff rate at 14.2 percent and import duties at only 2.7 percent of imports. Cambodia joined ASEAN in 1999 and the WTO in 2004. Although trade with regional partners is below potential, these international commitments were useful to create confidence among investors. Exports accounted for less than a third of GDP in 1998 and almost two thirds in 2008. Fourth, Cambodia managed well the policy reforms around 1990 to liberalize its economy and began to establish a track record of legal reforms. All of this enabled it to harness the historically high global demand and take advantage of its low cost structure. Cambodia's level of exports per capita is higher than other SRG countries at

Cambodia's level of development (Figure 5), although this is owed partly to exports of tourism services. Cambodia also achieved a high level of foreign investment, dominated by investors from Asia.

19. **Third, growth also benefited from Cambodia's demographic transition** (see above). With fertility rates decreasing, demographic growth slowed down and the dependency ratio (ratio of the young and elderly to those working) started to decline. This contributed around 2 points of GDP per capita growth. This is unusual in the sense that most other SRG countries saw this transition happen only after they had reached US$1,000 in GDP per capita.

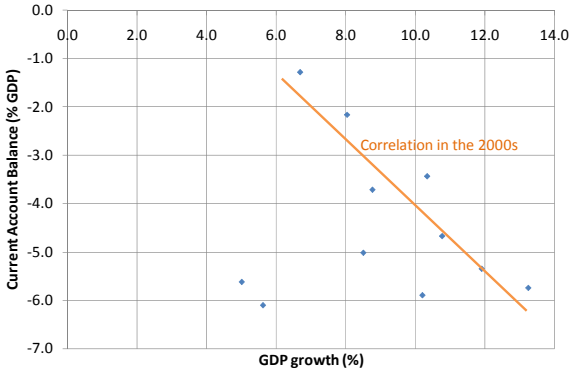
Figure 5: Cambodia has higher exports per capita than other SRG countries at its level of development



Source: World Bank, WDI.

20. **This dimension – history and geography – stresses the vulnerability of Cambodia's achievements**. In a global environment characterized by considerable uncertainties, this dimension reveals that growth is very fragile and dependent on the global environment. Growth outcomes have been largely dependent on the availability of foreign savings (see the negative correlation between growth and the current account deficit which suggest the supply of foreign savings has been a constraint, Figure 6).[4] This highlights the importance of product and export diversification for sustaining growth and reducing these vulnerabilities to external shocks. Even encouraging achievements in the area of regulations and institutions are not always anchored in a long tradition of business in Cambodia, but rather often imported from other countries: this explains why several of these achievements are only *de jure*, not *de facto*. Finally, this dimension highlights that Cambodia went through a unique window of opportunity with the establishment of peace coinciding with a favorable external environment.

Figure 6: Growth tends to accelerate when more foreign savings are available



Source: World Bank, WDI. Data for 1994-2007.

[4] This also highlights the low level of financial depth and limited capacity to mobilize domestic savings (see below). It should be noted that Cambodians' trust in the financial system had been seriously eroded by the Khmer Rouge regime – which abolished the currency – and is only gradually being rebuilt.

Use of Natural Assets and Domestic Savings

21. **The second dimension underlying Cambodia's growth performance is that Cambodia's rapid growth has been driven by the exploitation of its natural assets**.[5] The forestry sector, which generated significant income in the 1990s (and, by many accounts, fed into subsequent waves of investment in real estate), is a clear example. Concerns have also been raised about the depletion of the fish stock. Together the forestry and fishery sectors accounted for 19 percent of GDP growth in 1993-98, but only 2 percent in 2003-08. Forest products accounted for 43 percent of exports in 1994 and less than 1 percent in 2006. In fact, the Government, out of concerns for these issues, banned logging in 2000, reformed large commercial fishing lots in 2002, and has been promoting community approaches to forestry and fishery management since then. The historical site of Angkor has also driven a very rapid growth in tourism (with the number of tourists increasing from 200,000 in the early 1990s to 2 million now), amid concerns about its sustainability.

22. **Despite this rapid use of natural assets, savings (in financial assets) have been low** (13 percent of GDP in 2007, with investment at 21 percent). There could possibly be some dis-savings, with a rapid depreciation of existing assets.[6] The low level of savings was also evident in the public sector, where public savings have been historically low, but this is offset by domestic assistance (from private donors) and external assistance. Public savings have improved since 2003, as the Government initiated a Public Financial Management Reform Program that enabled stronger fiscal control. This low level of savings would be consistent with the short time horizon frequently noted in Cambodia (in part the result of its level of development, limited financial sector, and post-conflict situation), although this might change as the proportion of working-age Cambodian increases (this age group has a higher propensity to save).

23. **The unsustainable use of assets is compounded by a questionable allocation of investment**. There are high returns on some classes of assets, with capital inflows in 2007-08 pushing asset prices up. Land speculation and a real estate boom have created significant returns: prices in Cambodia are at levels suggesting that investors plan to recoup their investment not only from using or renting their asset, but also through capital gains.[7] As a result of these high returns, banks are looking at rates of returns well above 40 percent, which the manufacturing sector is unlikely to generate. The weak quality of investment is also shown by low utilization rate (including in garments and tourism) and, in some sectors, low mark-ups (low profits over wages), possibly signaling a low opportunity cost of financing (World Bank, 2008d).

24. **This second dimension is also highly unsustainable**. There is first the obvious risk of exhausting assets. Second, the questionable allocation of investment constrains diversification (e.g. the financial sector and entrepreneurship are directed to further use of natural resources, as

[5] See for instance Sloth, Sreng, and Bottra (2005).

[6] It might be useful to undertake some analysis of a broader definition of savings, including natural assets, to guide policy-making, especially if mineral resources are present in Cambodia. Data on forestry (cover and quality) are scant and controversial. Data on fish stocks are largely inexistent. Data on underground resources are undisclosed or inexistent.

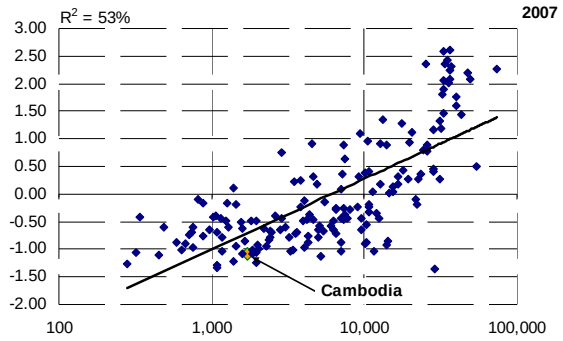
[7] The ratio of house prices (per square meter) to income (GDP per capita) is above 4 in Cambodia, against 2.6 in Vietnam and less than 1 in almost all other Asian countries (even though the yield on the rental of properties is not particularly high).

opposed to investment in manufacturing or innovation). Finally, the experience in SRG countries also highlights the importance of increasing savings and investment to 25 percent of GDP or more. Most of these countries also show a marked increase in these two rates between the first and second decades of sustained rapid growth.

Sector-Specific Governance

25. **Cambodia has achieved rapid growth even while firms complain about poor governance**. In surveys such as the Investment Climate Assessment (ICA), firms report high levels of corruption (Figure 16), and register complaints about the quality of the public services that usually underpin growth. Cambodia rates low on most international governance scores, even compared to countries at the same level of development (Figure 7).[8] [9] A more specific question for understanding this growth paradox is therefore: "*Why have successful sectors been able to thrive even with such apparently poor governance conditions?*" Beyond the role of governance arrangements that ensured political and macroeconomic stability (see above), there must be arrangements that are specific to the sectors that are growing. A comparison of sectors that are growing (the "camels" in the desert, see Box 2) and those that are not is instructive (Box 1).

Figure 7: The perception of corruption is high, even compared to countries at the same level of development



Source: WDI for GDP per capita (2005 PPP US$ per capita); World Bank Institute for Control of Corruption (index on a -2.5+2.5 range, higher means less corruption).

26. **The garment industry is an example of "hand-in-hand governance"**, where the Government (in particular the Ministry of Commerce) and the firms (coordinated by the Garment Manufacturers Association of Cambodia, GMAC) worked together to create an environment that generated growth.[10] The strategic vision developed by the RGC, with the US Government, helped align expectations for investors. There was a clearly identified and dynamic market for exports. The link to export quotas and the supervision by the ILO helped establish the credibility of these higher expectations. The rents for Government from managing quotas (which ended in 2005 as the Multi-Fiber Agreement was dismantled) increased incentives.

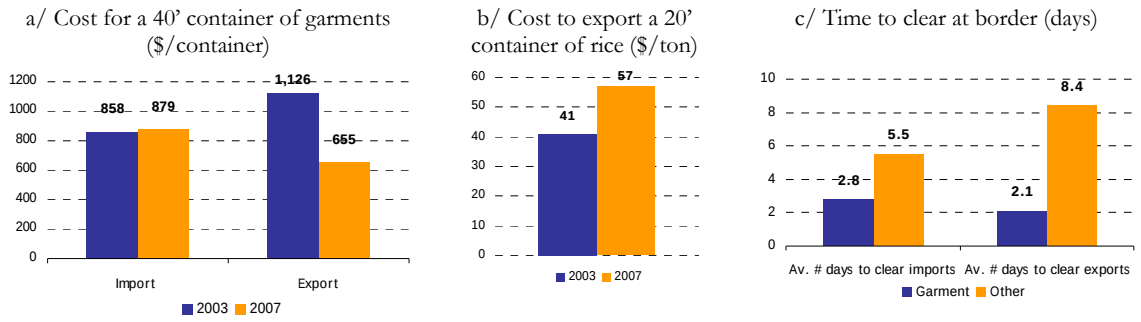
[8] In the most recent versions, Cambodia ranks in the 20-30th lowest percentiles for four dimensions of the World Bank Institute governance indicators, and 14th lowest for rule of law and 8th for control of corruption; it ranks 166th out of 181 countries in the Transparency International Corruption Perception Index; it ranks 135th out of 181 in the World Bank's Doing Business indicators and 110th out of 131 in the World Competitiveness Indicators.

[9] There is ample evidence that governance and development are tightly linked (although the link between growth – as opposed to the *level* of development – and governance continues to be debated).

[10] Another example of collective action arrangement is the Government-Private Sector Forum (G-PSF). This Forum, established in 1999, has been instrumental in giving the private sector a sense of security regarding Government responsiveness. The Forum, which meets twice a year under the chairmanship of the Prime Minister and has eight working groups meeting regularly, provides a vehicle for the private sector to raise its concerns and for the RGC to be held accountable for its decisions by the private sector (it has also been used for consultation on legislation).

Subsequently, the existence of a strong and capable business association, GMAC, helped sustain support to the industry and create a sense of security given GMAC's capacity to get things done with the RGC. This, for instance, is evidenced by the reduction in trade costs in this sector, at a time when these costs were still increasing for other industries (Figure 8).

Figure 8: The garments industry was able to make trade cheaper and faster, but the rice industry was not



Source: JDI, 2007b and World Bank (2008d).

27. **The roles of international drivers, foreign investors, domestic collective action mechanisms, and high stakes seem to have been critical in these achievements**. External pressure was instrumental in creating the opportunity for growth in the sector. The Government's response was probably driven by the high stakes, with a very labor-intensive sector (now employing 300,000 workers) and significant rents from the quotas. Coordination within Government (which is often challenging given its fragmented nature) was ensured through the dialog being monopolized by the Ministry of Commerce. Foreign investors helped sustain the Government's focus on the sector. The business association created the vehicle to solve collective action problems and maintain the necessary close relationship with the Government. Its role was facilitated by the clustering of many factories, the homogeneity of the sector (most factories facing similar issues), and the strong pressure from global buyers.

28. **By contrast, many other sectors lack these arrangements** (Box 1). In livestock, returns are potentially high and there was significant interest among otherwise successful Cambodian investors and foreign investors. Even so, the sector remains stunted, incapable in particular of dealing with intractable issues of sanitary standards. Rice, as well, has been limited to small amounts of milled exports, despite the significant quantities of paddy exports.[11]

29. **This dimension shows that poor governance has a differentiated impact across sectors**. Poor governance acts a barrier to entry: it takes an active hand-in-hand relationship to break through this barrier and provide comfort to investors. Hence returns must be high to motivate this relationship. Alternatively, the nature of a sector may make it less vulnerable to poor governance: for instance, in tourism, small-scale operations have worked well (even though possibly not as well as if governance had been better) because they are often too small to be exposed to bad governance and the direct contact with tourists implies significant competitive pressures. Yet, in the same sector, very few more complex operations have worked (large operations, such as the management of large hotels or the site of Angkor Wat, exist but do not

[11] This might however be gradually changing as the 2007/2008 increase in rice price has changed the economics of the sector.

require complex value chains). More generally, most productive activities in Cambodia are focused on value chains with very few steps (see Section II).

Box 1: A Tale of Three Sectors

Garments, rice, and livestock are three sectors that have considerable promise in Cambodia. Yet, one is vibrant (garments); one might be emerging (rice); and one is stunted (livestock). Comparing these three sectors highlights the importance of governance for growth and illustrates how governance can improve and support growth in some sectors but not others. This helps explain the paradox of double-digit growth with relatively poor governance.

Evidence suggests that two factors may help explain garment's success: (a) the presence of a private sector organization - the Garment Manufacturers Association of Cambodia (GMAC) - which produced collective action to lobby authorities for negotiated industry-wide rent-seeking rates and (b) international drivers/incentives such as an overwhelmingly foreign presence in garments (more than 95 percent of garment factories are foreign owned) along with quota exports to the United States linked with minimum labor standards that produced enough rents for all parties involved. The GMAC - Ministry of Commerce relationship is exceptional. Establishing a garment sector in Cambodia proved a win-win proposition both for foreign investors and local stakeholders.

By contrast, the rice and livestock sectors compare unfavorably to garments, even if not encumbered by price or trade restrictions. No credible private sector organization for collective action exists in either sector, although rice has competing rice milling associations whose membership is diffuse both geographically and politically. Livestock does not enjoy even that modicum of organization, in part because of a lack of social capital, which was destroyed during the Khmer Rouge period. Indeed, even the word cooperative/collective is frowned upon for its socialist roots. Moreover, in both rice and livestock, foreign involvement is minimal compared to garments. Livestock had foreign involvement in the export of cattle through a joint venture with a Malaysian partner, but that partnership ended in 2005, allegedly because of onerous unofficial payments. Rice may have an opening in exports to the European Union through its zero tariff for Least Developed Countries initiative "Everything But Arms". However, this will require stringent Sanitary and Phytosanitary Standards to be met.

In summary, differences across these sectors include the involvement of international players, the creation of new opportunities (as opposed to the division or displacement of pre-existing rents), and the generation of social capital to fight long ingrained patron-client networks. Some of these differences were driven by the nature of the markets (in terms of profit margins for instance).

"Good enough governance" itself is not a permanent condition; it can go either way, and the key to policy is tipping it in the right direction. Potential factors for promoting growth include tackling the constraints observed in each of the sectors that reach far beyond those sectors alone. Of course, there are too many constraints for each to be binding per se. Garments, rice, and livestock all require transportation and electricity and face similar unofficial payments. However, garments clearly has achieved good enough governance through collective action and negotiation, while livestock has hardly developed beyond smuggling activities. Rice could enjoy good enough governance in the future, as higher prices create higher rents.

Source: based on research by Ear (2009).

30. **This approach is not without risk**. There is first the risk of the Government or the private sector seeking to extract too much out of this hand-in-hand relationship, squeezing the golden goose. In the case of garments, this could mean the Government imposing too high informal taxes on exports, or the private sector receiving unreasonably high tax exemptions. There is also the risk of this relationship disserving public interests – as opposed to generating growth (e.g. crony capitalism, non-competitive allocation of public contracts, abuse of land rights, or restriction of competition).

Summing Up

31. Although they have mainly to do with how to *ignite* – as opposed to sustain – growth, there are important lessons from these three dimensions:

- Each dimension suggests, for distinct reasons, a sense of the unsustainability of growth. This could be because past growth was a one-off event, based on historical opportunities, or based on running down pre-existing assets. Alternatively, it could be because the nature of the growth, through sector-specific arrangements, makes it difficult to scale up. Economic developments in 2008/09 further underscore these vulnerabilities.
- On the other hand, each dimension highlights some elements of a growth strategy that are in place. For instance, a few connections to global markets have been made and the importance of macroeconomic stability is now adequately factored in by policymakers. Stakeholders have established a track record of problem-solving, which enabled the growth of sectors like garments and tourism.
- No single dimension can by itself explain Cambodia's growth experience. The view that growth has been entirely the result of laissez-faire and the liberalization of the 1990s is not credible: otherwise, growth would have been much more broad-based. The view that governance constraints across the board prevented growth is at odds with the growth performance. Private sector has been able to strive over the past ten years. Yet, weak governance – beyond its impact on service delivery and citizens' daily life – can explain the lack of diversification, hence the fragility of growth.

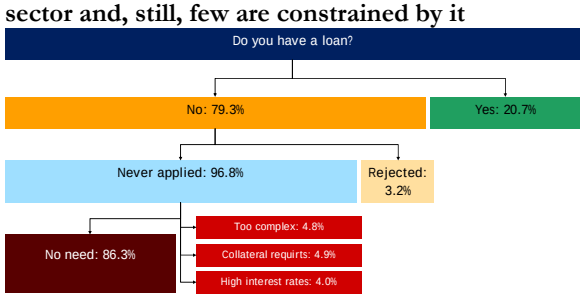
IV. Constraints to Sustained Rapid Growth

32. **In Cambodia, a low-income country, everything might be seen as a constraint on growth – yet, as a low-capacity country, prioritization is key**. This section builds on the framework of "growth diagnostics" developed by Haussman, Rodrik and Velasco (2005) to identify constraints that explain the characteristics of Cambodia's economy (Section II and III), in particular its low levels of investment and low diversification. Box 2 discusses the methodology in more details. It highlights in particular a limit of the methodology, which is that some constraints might depend on the diagnostic about the country's comparative advantage and the sector that are expected to grow: to show this point, Box 3 focuses on constraints on agriculture.

Access to Finance

33. **Although Cambodia's financial sector is under-developed, it has responded to growth since 2005**. Less than one in five firms has a loan (Figure 9). But, after GDP growth accelerated in the early 2000s, the financial sector responded, including through innovations brought by foreign banks. The financial sector is now at a level of development commensurate with the country's income. Liquidity (measured for instance by the loans to deposits ratio) remained high until late 2008. Real interest rates were negative in 2008. If anything, the limited supply of credit has constrained investment in construction (with investment and the real interest rate showing a negative correlation,

Figure 9: Few firms have access to the banking sector and, still, few are constrained by it

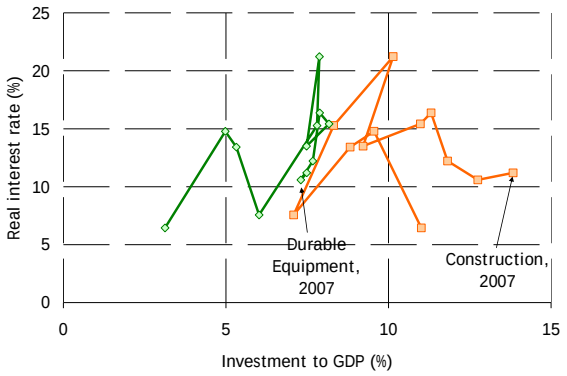


Response to the question: "has your firm a loan?". Source: World Bank (2008d).

suggesting that the equilibrium was moving along the demand curve, i.e. being constrained by the supply of credit, Figure 10), but not in equipment (opposite correlation). A very small minority of firms rate the access to, and the cost of, finance as a severe constraint in the business environment (Figure 16).

34. **Savings will have to increase in the medium term**. The foregoing analysis suggests that the financial sector has, so far, not been a major constraint to growth. Nevertheless it also points towards risks, suggesting that savings will have to increase in the medium-term. In particular, the strong negative correlation between GDP growth and the size of the current account deficit (Figure 6) suggests a strong dependency on foreign savings (which are very uncertain in the current international financial environment).

Figure 10: Investment in construction is negatively correlated with real interest rates, but investment in durable equipment is not



Source: NIS, WDI, Staff (data for 1995-2007).

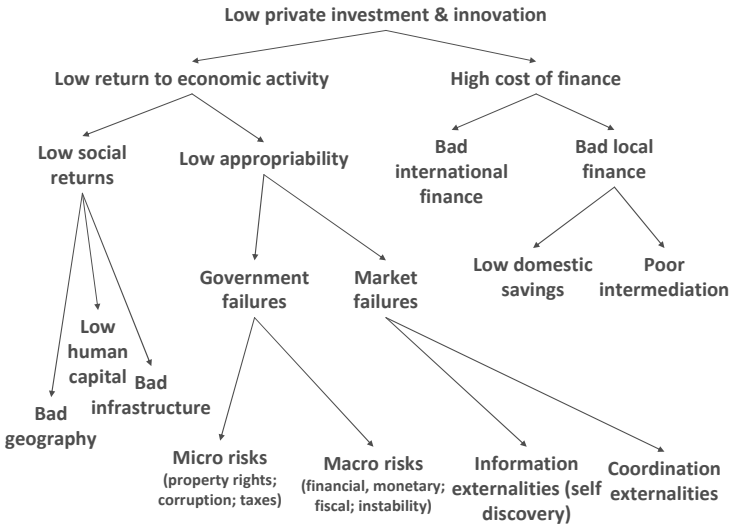
35. **In addition, access to finance is likely to be a constraint for medium-size greenfield investments**. Given Cambodian banks' size, large loans of US$5 million or more are reportedly very difficult to mobilize. It can also be observed that almost all large investments are cofinanced by foreign investors. Anecdotal evidence indicates that credit rationing has been an element preventing diversification from garments to textiles.[12] Given the many constraints on such capital investments (see below), it is however difficult to conclude to what extent the financial sector is the constraint – rather than other business environment issues.

36. **Second, access to finance is a stronger constraint for agriculture** (Box 3). Only 5 percent of the loan portfolio is for agriculture (NBC, 2008). With lack of access to formal credits, many farmers rely on informal sources of financing with very high interest rates. Lack of credit is also viewed as a major reason for rice millers' lack of working capital and outdated technology. Many financial instruments, such as factoring, warehouse receipts, and inventory credit, are missing. In addition, banks only do collateral-based lending with steep coverage requirements, amounting to two or three times the value of the loan: they simply will not lend against unsecured future cash flows, or against a signed sales agreement. Finally, loan repayment terms are not sufficiently flexible for some longer term agriculture crops, agro-forestry in particular.

[12] This is also consistent with an analysis of the "external dependence across sectors" (the amount of capital expenditures that a typical firm needs to finance from external finance as opposed to retained earnings, cf. Rajan and Zingales, 1998). All sectors that Cambodia is specialized in (garments, but also tobacco and beverages) have a low level of external dependence, suggesting some constraint from the financial sector.

Box 2: The Methodology and Lessons Learned

The approach in Section IV is based on the **framework of "growth diagnostics"** developed by Haussman, Rodrik and Velasco (2005). It seeks to explain some key features of the economy by going through the decision tree on the right. Are firms constrained by finance or by low returns? If finance, is it because of local or international access issues? Etc.



As noted in Haussman, Klinger and Wagner (2007), this requires detective work to navigate the decision tree. Here is a list of some of the key ingredients used in this paper:

- *Comparisons across countries* are instructive, especially if the level of development is factored in (see for instance Figure 7). Comparing with countries under a sustainable path of development, as identified by the Growth Commission is also very instructive (e.g. Figure 5).
- The general principle that existing firms should be making *efforts to overcome the most binding constraints* is also insightful. In particular, coupled with a political economy analysis, this approach generated a good understanding of the growth of the garment sector compared to other sectors (Box 1). The political economy aspect is critical since a lot of these efforts are likely to be related to rents. Firm-level data was also useful to understand these efforts to overcome binding constraints – with, however, the usual caveats with respect to perception data from firms.
- *Simple economic analysis* generates also useful insights. In particular the diagnostic on the scarcity of finance is difficult. But the predicted correlation between interest rates and investment rates (e.g. a negative correlation would suggest that the equilibrium is moving along the demand curve, i.e. being constrained by the supply of credit) helped diagnosed this branch of the decision tree (Figure 10).
- Diagnosing the market failures side of the decision tree has proven hard. In our case, significant analysis on *the product space of exports and value-chains* generated important insights (e.g. limited self-discovery; collective action failures) to make the case that this was indeed an important constraint.

What are the **lessons learned** from the exercise?

First the exercise confirms the value of the *discipline* of looking at binding constraints. It is easy in a poor-capacity, weak-governance environment like Cambodia to make a case that everything is a constraint. Yet, this view is at odds with the record of growth of the past decade. And this view would also not be operational – given Government's own capacity constraints.

Looking for one or few binding constraints is however *politically counterintuitive*. First, in the Cambodian, Buddhist context, there is a view that everything should be improved at the same time, a theme that echoes that of a "balanced growth" path. Second, given the uncertainties (conclusions are often based on signals or hints, rather than being firm), the rapid changes of the economy, and the time it will take to address constraints that might emerge only in the future (e.g. skills), it would be unwise to "put all one's eggs in the same basket". This suggests a process-oriented diagnostic, that enables adjustments over time. Third, whether within Government or a multi-sector organization like the World Bank, radical prioritization at the expense of a some sector or issue is challenging.

Another lesson is the value of looking at *sectoral constraints* (see for instance on agriculture in Box 3). This is first useful to assess whether the economy-wide diagnostic is robust enough. It might also help to further prioritize the analysis, to focus on constraints that are more binding to pre-identified "priority sectors" or to sectors that are consistent with the country's comparative advantage: while it might be desirable to not identify such sectors, it might be a pragmatic way to prioritize policies (provided the identified sectors are not defying the country's comparative advantage, see Lin, 2008).

A final challenge of this exercise was its *timing*. Looking for constraints in an environment of very rapid growth is challenging given the rapid changes and the likelihood that few constraints are actually binding (except if one believe the country could have been growing at 15 percent per annum). Added to that is the major shock introduced by the global economic crisis, which in many ways reshuffle the constraints. In both cases, nevertheless, the outcome seems to suggest that it was useful to take stock of constraints since some constraints were emerging despite rapid growth and since the exercise identified the vulnerabilities that the crisis made apparent.

37. To sum up:

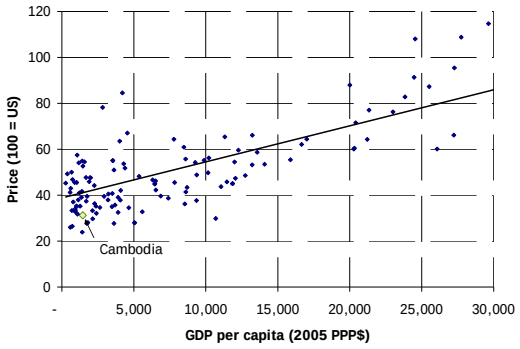
- The financial sector was until mid 2008 unlikely to constrain growth immediately at an aggregate level;
- However, even then, it was constraining some types of investments that are important in some growth strategies; and
- It will become a constraint if domestic savings are not better mobilized in the medium term.

Costs of Factors

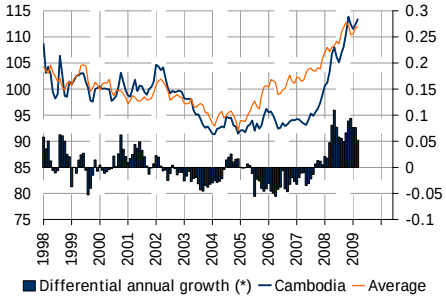
38. **A recent appreciation of the Cambodian riel in real terms has increased all dollar-based costs of factors**. Based on a simple analysis[13] (comparing the level of prices to the level of development, Figure 11), Cambodia did not seem to present any major overvaluation.[14] If anything, there was in 2005 a small undervaluation, a feature which has been shown to be important for growth (Rodrik, 2008). Since then, good macroeconomic management and the appreciation of many currencies against the US dollar had led to a relative depreciation up until mid-2007. However, the sharp appreciation of the riel in real terms since then (driven by strong inflows of capital in 2007-08, on top of a steady stream of external assistance, together with a major terms-of-trade shock) has changed this. This appreciation, if sustained, is poised to become a major binding constraint on growth (and diversification as this is going to defeat Cambodia's comparative advantage).

Figure 11: Some undervaluation in 2005 is likely to have morphed into overvaluation in 2008

a/ Undervaluation in 2005



b/ Trend in real effective exchange rate against main competitors in garment sector (increase = appreciation; base 100 = 2000)



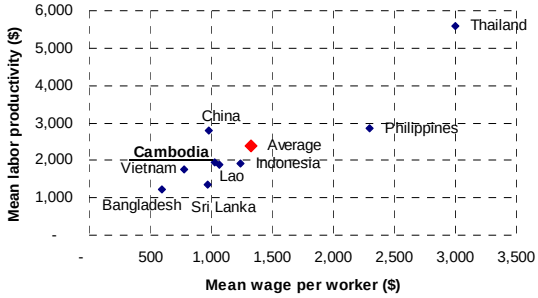
[13] See also IMF (2008).

[14] Cambodia is largely a dollarized economy (see Im, Dabadie, and Sokha, 2007). The local currency – Cambodian Riels (CR) – in circulation represents only about 6 percent of GDP and is mainly used in the interior of the country and for small transactions. Over 90 percent of deposits (and loans) are denominated in dollars. The main exception is the public sector: riels must be used to pay taxes and other public sector bills and the public sector pays in riels. The dollar is also used as a store of value throughout the country. This feature implies that the fluctuations of the real exchange rate measured in riels have a diffused impact on the economy.

*Note: In panel a/, the exchange rate was assumed to be undervalued in 2005 if the price level measured in the International Price Comparison Project is **below** the regression line for a given income per capita (in 2005 PPP $). In panel b/, an increase means that the riel is appreciating. Source: WDI and IMF for exchange rate.*

39. **Labor remains abundant and at low wages**. Labor costs are low, although not particularly low in regards of the level of productivity (Figure 12). There is no sign of firms complaining about regulations (occasional questions raised about the compliance costs of the labor standard program in garments are offset by a sense of the returns to this program). Firms also appreciate the openness to foreign labor (although recognizing that they would prefer hiring Cambodian, in particular for mid-level management, to save the cost of expatriates). The main issue raised relates to labor disputes (see below more generally on the lack of institutions for dispute resolution).

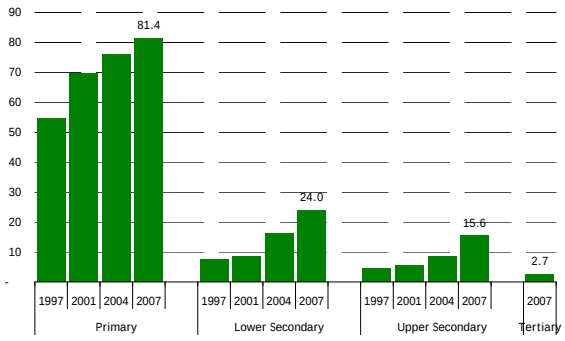
Figure 12: In the garment industry, wages and productivity are not in the low-range any more



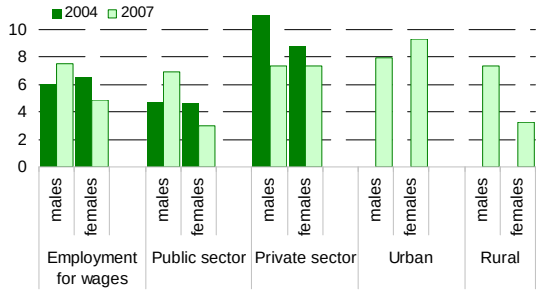
Note: based on investment climate surveys; labor productivity and wages are measured in 2004 US$. Source: World Bank (2008d).

Figure 13: Education levels are increasing from a very low base and the rates of returns to education have decreased

a/ Net enrollment ratio (%)



b/ Returns to education



Note: Returns to education are calculated as the coefficient of the number of years of schooling in a regression of wage salaries (with control variables).

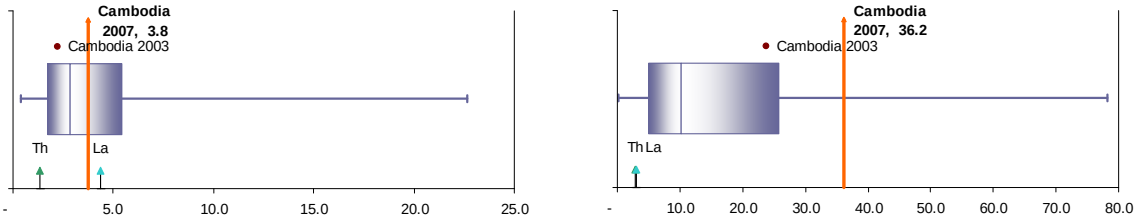
Source: 1997, 2001 and 2004 figures are based on the 1997 and 2004 CSES and in the 2001 Child Labor Survey, NIS, Staff.

40. **There is no evidence of aggregate skill constraints, although some mismatches have appeared**. Despite the low level of education, returns to education remain low and not increasing in the private sector despite the observed rapid growth (Figure 13). The only exception is probably the mismatch of skills for those that pursue upper secondary and tertiary education, which now trains a lot of "managers" and insufficient numbers of more specific skills (such as accounting, IT). This is also evident in the high turnover, which weakens the incentives for firms to train their staff (World Bank, 2008d). Hence general education should remain the policy priority, with a gradual preparation of the secondary and tertiary sectors. If skills are not a major constraint (yet), vocational training is probably an exception given the possibility of addressing immediate needs of existing firms: but here the issue is more one of coordination (see below).

Figure 14: Poor access to electricity is a serious constraint on businesses

a/Value Lost to Power Outages (% sales) b/ Electricity from Generators (%, manufacturing

sector)



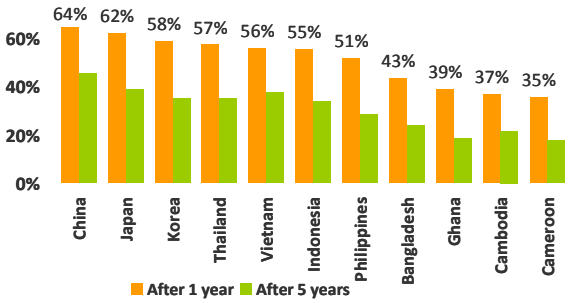
Note: The box represents the 25th and 75th percentiles of the distribution and the middle line the median. The extreme ends of the bar represent the minimum and maximum of the distribution. Cambodia's performance in 2003 and 2007, and those of Lao and Thailand, are displayed.
Source: World Bank (2008d).

41. **Electricity appears to be a binding constraint as evidenced by the high incidence of generator use and the high price of electricity** (Figure 14). The fact that almost no electricity-intensive industries are in place also supports that conclusion.

42. **Transport and logistics capabilities are limited in Cambodia**. The costs of domestic and international shipping are high, despite some recent progress in trade facilitation. For example, shipping a dry, 40-foot container from Ho Chi Minh City to Singapore would cost approximately US$220, whereas the rate for a similar container from Sihanoukville to Singapore is around US$600. The cost of transport for agricultural products is US$15 per ton per 100 km, against US$7.50 in Vietnam and US$4 in Thailand. The efforts deployed by the garment industry to improve logistics and trade facilitation also demonstrate that this is an important constraint.

43. **Finally, there is strong evidence of a lack of self-discovery and coordination**.[15] Most value chains in Cambodia are simple (see above), reflecting the risk that a complex value chain, with coordination among many elements of the value chain, would represent. The survival rate of new exports – the proportion of new exports that are still exported after one or five years – is also low, reflecting either (i) that Cambodian exporters might be able to do one-time innovation (a positive sign), but are unable to sustain such innovation as they lack the capability to deliver on time, logistics, etc.; or (ii) that foreign importers are willing to try to source from Cambodia, but after one or few attempts realize the cost of doing business (Figure 15). Diversification is limited and the sophistication of exports has not improved much despite rapid growth (Figure 2). The lack of "nearby products" (based on an analysis of Cambodia's product space) also suggests that Cambodia is exposed to problems of self-discovery and coordination.

Figure 15: Cambodia tends not to sustain its new flows of exports



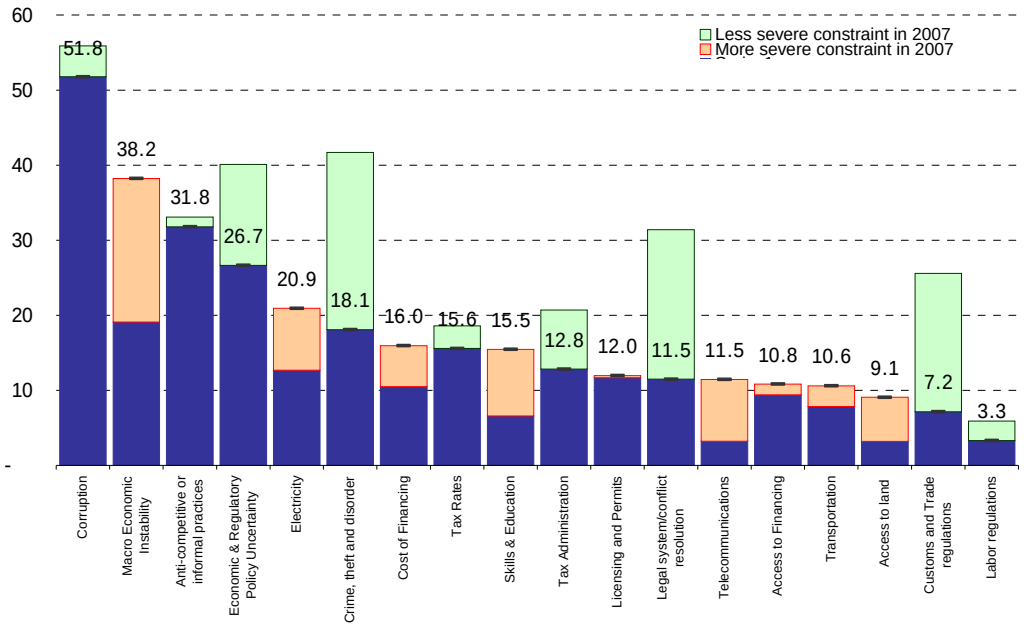
Note: the survival rate of exports measured the proportion of new export flows that are still positive after one or five years. Source: ComTrade, Staff, based on data from Paul Brenton.

[15] Self-discovery is the process by which a country finds out "what it is good at". It is a delicate process as it involves entrepreneurs taking risks, and potentially not being able to reap all the rewards of their investment (once they have found that something works in the context of Cambodia, it is likely to be replicated by others). Investing in new areas also requires the coordination of many inputs and policies, which is difficult to engineer, or is simply impossible when some inputs are missing (Hausmann and Rodrik, 2003).

44. **Factors behind the lack of coordination are numerous**. Cambodia's short history as an open, integrated economy and the destruction of its elites in the 1970s have led to a very low capital of market experience (knowledge, marketing contacts, etc.). This also translates into many *de jure* legal reforms not leading to *de facto* changes. Coordination issues are also evident in the lack of support services, such as packaging, standard certification, logistics, accounting (although in most domains a few firms are emerging). Conversely, the role of the Garment Manufacturers Association of Cambodia and the "hand-in-hand relationship" of firms with the RGC in the garment sector show the successes that good coordination can generate (Section III).

45. **Obviously, major uncertainties make coordination issues difficult**. Most of the top six factors that firms cite as severe problems for their operations could be interpreted as relating to uncertainties in the business environment (Figure 16): corruption (see below), macroeconomic uncertainty, anti-competitive and informal practices, economic and regulatory policy uncertainty, and crime, theft, disorder. This linkage between coordination issues and these uncertainties make the growth diagnostic more tentative (are the uncertainties the source of the coordination problems, or are coordination problems the core of the constraint?).

Figure 16: Constraints on the business environment have changed between 2003 and 2007, with corruption remaining firms' main concern[16]



Note: Share of firms that respond "severe or very severe" to the question: "How problematic are the following issues to the operation and growth of your business?" Source: 2003 and 2007 Cambodia Investment Climate Surveys.

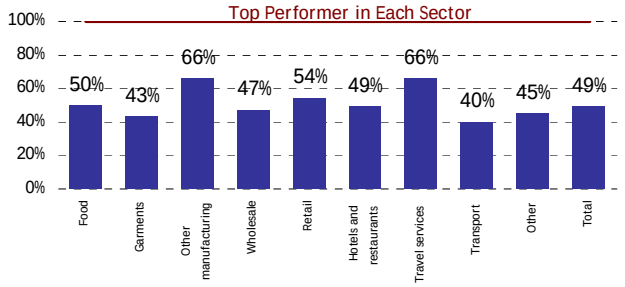
46. **There are a number of other market failures that weaken incentives for investment and productivity**. For instance, farmers, being perpetually cash-strapped, cannot negotiate prices and are forced to sell at depressed prices after the harvest: this undermines incentives to improve productivity (Box 3). Another important market failure that undermines these

[16] While very revealing, two caveats must be noted for this type of data. First, the various potential constraints are not equally narrowly focused: "corruption", for instance, can cover a wide range of issues, while "tax rates" are much narrower. Second, the data is based on a survey from *existing* firms: the fact that lack of diversification is a key issue makes this data uninformative about what prevents *other* firms from entering the market.

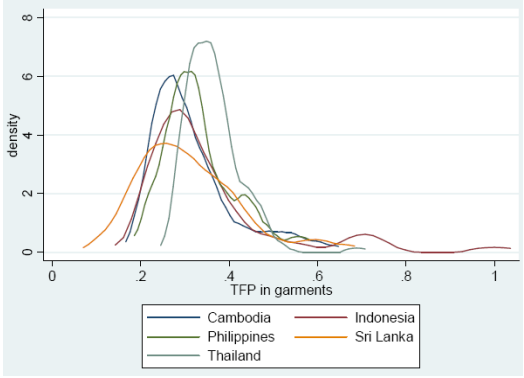
incentives is smuggling, as local producers (especially in agro-processing) must compete against smuggled ("duty free") goods. Evidence of these weak incentives is shown by the disparity between the best performers and the average performance in each sector, particularly in sectors that should be highly competitive such as garments or tourism (Figure 17): with stronger incentives for productivity, one would expect a lower dispersion of performance. Lack of competition is also documented, for instance, until recently, for the air connection between Bangkok and Siem Reap, an important constraint on the development of tourism in Cambodia (the monopoly on this connection results in a yield per passenger 27 percent higher than other flights, FIAS, 2007).

Figure 17: There is great variation of performance within each sector, with top-performing firms in garments comparable to top performers in competitor countries

a/ Productivity Gap between Mean and Top Performer across Sectors



b/ Density Function of Productivity in the Garment Sector in five Countries



The left panel displays mean firm-level TFP across sectors, as % of TFP in best performing firm in the sector. The right panel shows the density function of the TFP in garments across five countries. Source: World Bank (2008d).

47. To sum up:

- Among factor costs in local currency, the main issue in the short term seems to be the cost of electricity and the cost of trade. On top of this, the appreciation of the riel in real terms has recently weakened overall competitiveness.
- More important as a factor preventing investors from making plans for high-returns projects is the issue of coordination (and to a certain degree weak incentives for investment and productivity).
- Although skills and infrastructure are not major binding constraints at the moment, they will need upgrading for Cambodia to develop and move to more advanced sectors in the future.

Appropriability

48. A final potential constraint on investment is that, even though investors find projects that they expect will generate high returns and would be able to finance them, they are reluctant to undertake them because they doubt they can actually appropriate the returns. The reasons for this reluctance can be macroeconomic instability, heavy taxation or regulation, poor dispute resolution mechanism, or corruption. This section reviews these factors.

49. **While macroeconomic stability has been a key achievement of the RGC over the past decade, risks have recently** increased sharply. This has become a key concern for firms (Figure

16), spanning concerns about inflation (mainly in 2008) and concerns about external demand (mainly in 2009).

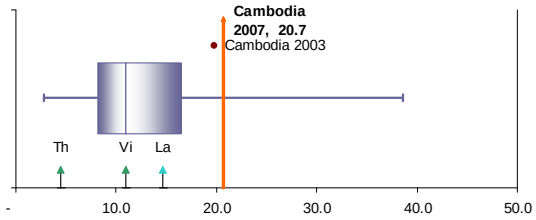
50. **The level of taxation is not seen as a major constraint**. This is confirmed both through surveys (Figure 16) and case studies, such as the Doing Business indicators (World Bank, 2008f).

51. **However, the complexity of regulations and the poor administration of tax and regulatory requirements are an important burden on firms**. Senior management spends a high 9 percent of its time dealing with government regulation requirements (World Bank, 2008d). Despite some improvements over the past few years, tax, customs, and business registration continue to have overly complex regulations and processes. The impact of the regulatory burden was evidenced by the major acceleration in company registration generated by the simplification of business registration processes in 2005-06 (World Bank, 2008d). It is also evidenced by the large informal sector.

52. **The absence of credible dispute resolution mechanisms is also a constraint**. Even established firms complain about it. In fact, they have several strategies to cope with the risk of disputes: for instance having sales pre-paid or maintaining very large inventories (Figure 18) protect them from the risk of a dispute (and from the unreliability of logistics services in the case of inventories). Between 2003 and 2007, losses due to labor disputes have increased from 2.6 to 6.0 days of production per annum and per establishment (World Bank, 2008f). More generally, the poor legal environment is evident from the high degree of self-enforcement of contracts (e.g. by pre-paying contracts), which is an important constraint for foreign investors.

Figure 18: Firms have strategies to avoid using courts for commercial disputes

a/ Share of Sales that are Pre-Paid (%)



b/ Days of Inventory of Most Important Input

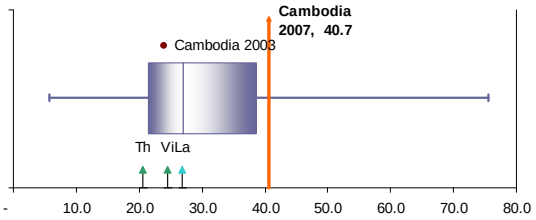
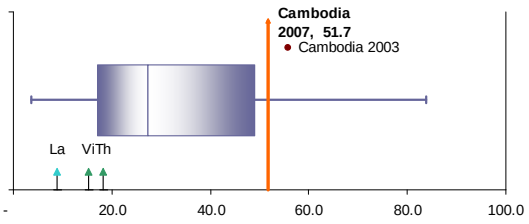
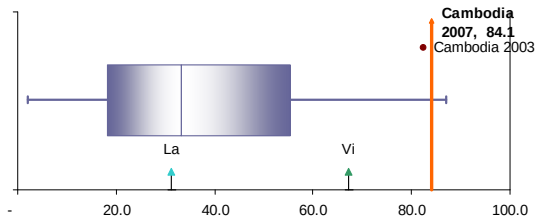


Figure 19: Corruption remains a major concern for firms

a/ Firms Identifying Corruption as a Severe Constraint (%)



b/ % of Firms Expected to Make Informal Payments to Public Officials (to "Get Things Done")



Note: The box represents the 25th and 75th percentiles of the distribution and the middle line the median. The extremes of the bar represent the minimum and maximum of the distribution. Cambodia's performance in 2003 and 2007, as well as Lao, Thailand, and Vietnam are displayed. Source: World Bank (2008d).

53. **Established firms report "corruption" as their main concern** (Figure 16 and Figure 19). There are multiple facets of corruption: (i) at the service delivery level (with bribes for registration, licenses, utility connections, customs, courts, taxation; etc.); (ii) in public procurement (both small and large contracts); and (iii) in gaining favor for policy decisions. As

discussed in Section III, sector-specific governance arrangements and various mitigating strategies have enabled firms to develop – and some sectors to prosper – but at a cost, in terms of sustainability and diversification.

54. **The impact of corruption is felt through direct and indirect channels**. The direct channel is evident from survey data such as Figure 19: high incidence of informal payments for various licenses and inspections (more than 80 percent of established firms are expected to make payments to "get things done"), weak reporting of income for tax purposes (only 59 percent of revenues is reported to the tax authority), etc (World Bank, 2008d). The indirect channel is through corruption's effect in deterring firms from entering the market: hence, as noted in Section III, poor governance has a direct link with poor diversification.

55. To sum up:

- Regulatory complexity and uncertainty, lack of dispute resolution mechanisms, and corruption are important barriers to diversification, although ad-hoc mechanisms enable certain firms to operate in this environment.
- The uncertain macroeconomic environment could be becoming an important constraint on growth.

Box 3: The Case of Agriculture[17]

Given the continued strong comparative advantage and potential for diversification and productivity gains in agriculture and agro-business, this box focuses on agriculture. It sets out five symptoms of the problem, before proposing a prioritization. The constraints are by and large consistent with the rest of the economy, with the exception of rural infrastructure.

The first symptom is the inadequate fertilizer usage. Poor soil fertility is identified as a major production constraint in most lowland areas, and could be addressed by suitable soil and fertilizer management technologies, such as siltation. Farmers do not use fertilizer at either the appropriate time or in the right amount. Adulteration is another problem that occurs leading to a mismatch between nutrient content and the label. The presence of low quality fertilizer has made many farmers suspicious of the market. Fertilizer usage in Cambodia is significantly lower than in neighboring countries at about 5-6 kg/ha, compared to 100-300 kg/ha in neighboring countries. This is so despite significant positive rice yield responses to fertilizer usage: returns to fertilizer application are large, way above 1 (i.e. a 1,000-riel investment in fertilizer will have increase output by much more than 1,000 riels in a variety of price scenarios). This significant response suggests that there are deeper issues behind this symptom.

Box table: Rice Yields, Technology Usage, and Infrastructure in Cambodia and the Region

Year	Cambodia	China	Indonesia	Laos	Malaysia	Myanmar	Philippines	Thailand	Vietnam
Rice yields (ton / ha)									
in 2000	2.1	6.3	4.4	3.1	3.3	3.1	3.1	2.6	4.1
in 2008	2.6	6.3	4.7	3.5	3.5	2.5	3.8	2.8	4.9
Average	2.3	6.2	4.6	3.3	3.3	2.7	3.5	2.7	4.6
Growth rate %	3.6	0.2	0.7	1.9	0.8	-2.5	2.7	0.8	2.3
Modern technology									
Tractor (per ha)	0.6	6.5	4.4	1.2	23.9	1.0	2.0	14.2	24.9
Fertilizer (kg/ha)	5	319	145		806	1	150	133	324
Irrigation (% of arable land)	7	39	23	19	20	20	27	31	45
Infrastructure									
Roads paved (% total roads)	6.3	81.6	55.3	14.4	81.3	11.9	9.9	98.0	25.0
Telephone mainlines (per 100 people)	0.2	28.0	6.6	1.3	16.6	1.1	4.2	11.1	19.1
Electric power consumption (kWh per capita)	15	1781	509	179	3262	82	588	1988	573

Source: Based on USDA Production, Supply and Distribution online (2008b) and FAOSTAT (2008), WDI (2008), see

[17] See references and detailed regression analysis in the background paper on the supply response to food price increases, prepared by the International Food Policy Research Institute (IFPRI). The objective of this box is to suggest a prioritization among the many constraints in agriculture.

IFPRI, 2009.

The second symptom is the lack of irrigation facilities. Approximately 7 percent of crop land is irrigated, the lowest in all of South-East Asia. The dependence of the agriculture sector on rainfall subjects the sector to weather vulnerability. A lack of irrigation facilities also restricts the majority of producers to a single, rain-fed rice crop per year, discouraging diversification of local farming systems. Again, the returns to irrigation are very high: the cost benefit ratio – the additional revenue per hectare from irrigated area divided by the unit cost of irrigation – ranges from 1.5 in the Tonle Sap zone to 1.9 in the Plain zone in 2004, and is above 2 in 2007.

The third symptom is the weak system of research and extension. Cambodia has no national research system and only a few focused research institutions. There is a disconnect between the information and technology that is available at the Cambodian Agricultural Research and Development Institute (CARDI), and that used by small holders. Consequently, farmers use unimproved seed for their crops or use weak seed from too many crop generations; too little fertilizer; too small (or occasionally too large) applications of farm chemicals. In addition, the absence of standards (and other trade instruments, such as geographical indication) weakens incentives for diversification.

The fourth symptom is the poor rural infrastructure. Because rural farmers are not well informed about market conditions (and prices can vary on a daily basis), Cambodian rice farmers are not in position to negotiate a better farm gate price for their paddy. Efficient and adequate rural infrastructure reduces agriculture production costs and increases farm gate prices by bringing people closer to market and opportunities. Again, access to market and telecommunications has a significant impact on yields. For instance, if the distance to a permanent market is reduced by 1 percent, the wet season paddy yield could be increased by 0.01 percent.

The fifth symptom is the rudimentary credit system. Apart from the ACLEDA Bank, the formal banking sector lacks capacity and is reluctant to lend in rural areas given the higher costs of reaching dispersed and small-scale clients, the difficulty of assessing credit risks, and the absence of reliable collateral. For most farmers, a need for cash during an emergency tends to leave them with only one option: to sell their produce stocks at a low price.

The potential for growth in agriculture is significant. For instance, it is possible to raise Cambodia's rice yields to the levels of its neighboring countries, if proper technology (fertilizer, irrigation) and infrastructure (market, road, electricity, telecommunications, education, and health) are provided. Given the high responsiveness to fertilizer, farmers could considerably increase their yield and revenue from more market sales. CDRI (2008a) concluded that if the mid-2008 high prices stay after the next harvest, farmers will see 50-80 percent higher net margins, despite the higher input costs they are incurring now.

To realize this potential, the constraints for agriculture appear to be as follows:

- *Coordination (and public goods) issues.* There are four different gaps. First, the lack of research and extension translates into poor information on price, technology, and marketing. Second, the absence of a mechanism to develop and enforce standards both distorts the input market (e.g. quality of fertilizers) and reduces the incentives to move toward higher value chains. Third, coordination among private actors is difficult, even for simple value chains like rice, while it is known that food value chains can be complex (World Bank, 2008c). The fourth gap is the lack of land titles and proper land planning for new areas. Low usage of modern technologies, poor quality of fertilizers, high positive impact of education on yields[18] are all symptoms of these four gaps.
- *Appropriation.* Like all sectors, agriculture suffers from the difficulty farmers face in getting the returns out of their investment (in turn, this gives them an incentive not to invest). Although they are probably less faced with bribes around regulatory processes (since they are mainly informal activities), they face costs while transporting their output. Finally, coordination issues (previous point) put the farmers in a weak position to get the best information on technology and price. These concerns most likely explain a great part of the credit rationing that agriculture faces (see also para. 36).
- *Rural infrastructure.* While only electricity seems to be truly a binding constraint across the economy, rural roads and irrigation seem also to constrain agriculture.
- *Risks.* Another important factor is the risks associated with the weather, which are compounded by the lack of irrigation coverage. Combined with poor land titling and limited capacity for precautionary savings, this contributes to credit rationing and weakens incentives for productivity and innovation. Recently inflation in the prices of inputs has also considerably increased risks, possibly creating the case

[18] See regression analysis in IFPRI, 2009.

for some well-targeted subsidies.

V. Conclusion

56. **Cambodia has achieved a remarkable decade of rapid growth, but has been hit by the global economic crisis**. The remarkable performance can be traced to a mix of historical circumstances, favorable initial conditions, and useful policy choices. Additional analysis (World Bank, 2009) suggests that Cambodia has the potential to sustain rapid growth. However, this performance had highlighted vulnerabilities (lack of product and export diversification, lack of domestic savings) which have been further revealed by the global economic crisis. This external shock has severely impacted the garment and, to a lesser extent, the tourism sectors, putting pressure on the labor market.

57. **A number of priorities emerge from this analysis**. While progress would be useful in most areas, certain issues should be given priority to realize Cambodia's growth potential.[19]

- In the short term, the growth strategy is likely to revolve around (i) mitigating the impact of the global economic crisis and (ii) seizing potential opportunities (e.g. trade with ASEAN, see World Bank, 2009). In that context, the binding constraint analysis suggests that immediate constraints that are amenable to quick actions include macroeconomic stability (but, the appreciation of the real exchange rate, while a major issue, has few instruments to be addressed), trade facilitation, and reducing labor disputes: this would be good ways to maintain the viability of the garment industry and seize the opportunity of regional trade and integration. Some coordination devices to enable a supply response to higher prices of rice (e.g. farmers' association, interventions to fix the fertilizer market) could pay a rapid dividend, especially as agriculture is one of the few existing sectors that are less dependent on external demand.
- The second part of the growth strategy, over the next couple of years, is the diversification in the country's existing comparative advantage. To accomplish this, the priority is to reduce coordination problems (most likely by reducing the unnecessary regulatory burden as well).
- Finally, the longer-term growth objective should be to upgrade Cambodia's endowment. This is likely to require a strategy to upgrade education and infrastructure, while mobilizing more domestic savings.

58. **This three-part growth strategy suggests an encouraging future for the development of Cambodia**. The context early 2009, as well as the serious governance issues that the country has been facing over the past decade, would invite to a cautious conclusion about Cambodia's growth potential. Nevertheless the foregoing analysis suggests that the country has achieved rapid growth and gradually alleviated key constraints. Perhaps the main insight of the analysis is that many of the possible constraints on Cambodia's growth have long been present, without actually constraining growth significantly (and the economy has weathered many shocks in the past): this is encouraging. At the same time, the nature of the growth process is changing and

[19] The full report (World Bank, 2009) discusses a possible growth strategy with three different time horizons. The report also focuses in particular on three policy instruments: the macroeconomic policy mix (and financial sector policies), the fiscal policy, and industrial policy.

emerging constraints will test the achievements of the past. This suggests continuing this process of scanning the most binding constraints to growth to adjust policies as the country builds its assets and changes its comparative advantage.

59. **Lessons learned from the paper's methodology are drawn in Box 2**. The key benefit from the approach is to provide an evidence-based thought process to the much necessary prioritization exercise. Its main challenge – beyond the usual lack of data felt by the analyst – is the fluid nature of the binding constraints (which results from the uncertainty about the growth potential as well as that of the external environment). For instance, while the exchange rate was not an important constraint, the rapid appreciation of the dollar has changed the situation. Similarly the reliance on foreign savings was somewhat less problematic in an environment where international capital flows were abundant. This suggests the need to continue updating such diagnostic to adjust priorities as new information becomes available and as the external environment evolves.

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